Managing the Dairy Bull

By C. S. Rhode and W. A. Foster

Circular 460
POINTERS IN BULL MANAGEMENT

Do not allow the dairy bull to run with the herd. To do so makes him a very dangerous animal. Also, heifers are bred too young, cows are bred too soon after calving, breeding dates are difficult to keep, and the bull may be overworked.

To induce a bull to take more exercise, place a metal barrel or a 2-foot section of a log 16 to 24 inches in diameter in the yard for him to butt around. A bull will also play around a heavy post set in the center of the yard.

Young bulls may be used for light service when they are 10 to 12 months old. Service should be limited to one a week until the bull is 15 to 18 months old, then may be gradually increased. At two years of age, a well-managed bull will take care of a herd of 60 or more cows if the services are distributed throughout the year. Only one satisfactory service per cow should be allowed.

When the bull is about a year old, place a ring in his nose. Do not lead him with the ring until his nose is healed.

Keep the bull's hoofs well trimmed. If they are allowed to grow abnormally long, his feet may become deformed and his usefulness affected.
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Keeping the well-selected dairy sire in active service to old age and handling him without risk of injury to the attendant are problems of management that are closely associated with a constructive breeding program.

Carefully selected young dairy bulls should be kept in service until their true value is known, for it is from this class of bulls that the good transmitting sires come. While the common practice of buying a young bull, using him for two or three years, and then selling him to the butcher rids the industry of many bulls of poor inheritance, it also sacrifices many excellent sires which neither the owners nor the industry can afford to lose.

Most dairymen are reluctant to use older bulls mainly because they consider their care and management too difficult and hazardous. These drawbacks to the use of older animals can be easily overcome, however, by well-designed housing and plenty of exercise.

House Bull Separate From the Herd

The dairy bull should have a shed of his own, but where this is not practical a box stall in the dairy barn opening into an exercising yard is satisfactory. The shed for the bull need not be elaborate but should be of sufficient size, dry, well constructed, with a southern exposure if possible, and with satisfactory water facilities.

A floor plan for a bull pen, exercising yard, and breeding stall is shown in Fig. 1. An arrangement for two bulls is shown in Fig. 2.

Size.—A shed 12 by 20 feet is of desirable size and will allow for a feed alley 4 feet 6 inches wide and a pen 11 by 14 feet. A feed bin may be placed at one end of the alleyway and a door at the other. There should also be a door opening from the feed alley into the pen.

Exposure.—If the shed has a southern exposure, there is little need for closing the doorway leading to the exercising yard.

Door.—A desirable type of door to use is one hung off center. It is opened by the bull and automatically closes (Fig. 3). Ordinary hinged doors usually do not last long.

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Manger and Stanchion.—These are constructed in one corner of the pen.

Foundation.—A 9-inch concrete wall extending 2 feet below and 2 feet above the ground makes the most desirable foundation for the shed.

Floor.—Hard clay may be used for the floor although concrete is more desirable. A concrete floor should be 4 or 5 inches thick and should be laid on well-tamped cinders or gravel.

Provide Plenty of Space for Exercise

Plenty of exercise is an important factor in keeping the dairy bull active and potent. The easiest and safest way to provide the needed exercise is to provide an exercising yard adjoining the bull shed. The yard need not be large nor expensively constructed. There are, however, a few important points that should be considered.

Location of Yard.—If possible, the yard should be so located that the cows will pass by it, or at least where the bull can see the cows. A bull will take more exercise if the cows come near his pen than if he is placed away from them.
If local conditions permit, the exercise yard should be located adjacent to a small pasture lot. An ideal arrangement is to have the exercise yard open into a one-half to one-acre pasture. Pasture grass
is very desirable for older bulls. The bull will also get much more exercise when he walks back and forth to the pasture.

Long, Narrow Yard Is Best.—The exercise yard need not be wide but should be long enough so the bull will tend to move from one end to the other. A yard 16 to 18 feet wide and 60 to 70 feet long is satisfactory. Square yards are not desirable unless they are large. A bull will take more exercise in a long, narrow paddock than he will in a square one.

Use Strong Fence Construction.—The yard fence should be strongly constructed. Posts not less than 6 to 8 inches in diameter and 9 feet long should be used. They should be set 3 feet in the ground and spaced 6 to 8 feet apart. Almost any material strong enough to keep the bull on the inside may be used for the fence. Two-by-6-inch planks nailed with heavy spikes or bolted to strong posts make a very desirable fence. The fence should be 5 planks high, the bottom one 10 inches from the ground, and the others spaced 8 inches apart.
Fig. 4.—A satisfactory housing arrangement for two bulls

All fencing material should be placed on the inside of the posts with the exception of iron pipes which may be set in concrete posts.

Iron pipes or old boiler flues are often used as fencing material. They may be fastened to the posts with U bolts or set in concrete posts. If they are run thru concrete posts the holes in the posts should be made ½ inch larger than the pipe, and the posts should be large enough to give needed strength. If the pipes are large it is usually more economical to fasten them to the posts with U bolts. Four pipes running horizontally 15 inches apart center to center, the first one 15 inches from the ground, set in or clamped to strong posts make an attractive, durable fence. (Fig. 5).

If sapling poles 3 to 4 inches in diameter are available, a strong, cheap fence may be made with them. The ends are hewn so that they may be securely nailed to the posts.

A fairly satisfactory fence may also be built of heavy No. 9 woven wire 60 inches high. When wire is used, the posts should be securely braced and the wire tightly stretched. Heavy woven wire is satisfactory fencing material for the pasture lot.

Fig. 5.—The fence for the exercising yard may be constructed out of most any material strong enough to keep the bull on the inside
Use a Safety Breeding Stall

With a well-planned and well-constructed bull shed, exercise yard, and safety breeding stall, the most dangerous bull may be managed with complete safety. The safety breeding stall is a very important part of this arrangement, as it affords a means of breeding the cows without the necessity of handling the bull. The cow is led into the breeding stall and tied in the stanchion at the end. The gate separating the bull from the cow is then opened. After the service, the bull is easily crowded into the yard by closing the gate.

The breeding stall may be constructed at the side of the bull shed or along the side of the yard, as shown in Figs. 1, 2, 6, and 7. The floor plan (Fig. 1) shows the desired location of posts. The posts are numbered in the diagram in the order in which they should be set. The stall is 6 feet 6 inches long from Post 4 to Post 5 and 4 feet wide. Post 4 is set 12 inches from Post 3 so the attendant may facilitate service if necessary. The width of the gate from Post 1 to Post 2 may vary from 6 to 8 feet. The stanchion at the end of the stall is built in

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Fig. 6.—The stanchion in the breeding stall should be built in a gate which opens out
a swinging gate (Fig. 6) which opens to the outside so the cow may be led out.

A breeding rack may be of value when young heifers are bred to heavy bulls. It may be constructed in the breeding stall as shown in Fig. 2, or it may be built outside. A plan is shown in Fig. 8. The boards (2" x 10") which support the bull at time of service are fastened to the lower posts by a $\frac{1}{2}$" x 8" lag screw or a $\frac{1}{2}$" x 10" bolt.

**Dairy Bull Needs Careful Feeding**

Impotent, inactive bulls and stunted growth are the penalties for careless feeding. It is highly desirable, therefore, to adopt feeding practices that have proved their worth.

Young bulls especially are often neglected, so far as feeding is concerned. This is a serious mistake. To develop into normal, vigorous sires, they must have the right feeds and generous amounts of them.
at all times. They should never be permitted to become either thin in flesh or fat. If a pasture lot is available for summer feeding, grass supplemented if necessary with grain should produce normal development. A liberal supply of legume hay and a suitable grain mixture fed in such quantities as needed to keep the bull in satisfactory condition make a desirable ration for winter feeding or for summer feeding when grass is not available.

A suitable grain mixture for both young and old bulls, when feed with good legume hay, is:

- 3 parts ground oats
- 2 parts wheat bran
- 1 part soybean, linseed, or cottonseed meal

*When the roughage is mostly or all nonlegume*, use 1½ to 2 parts soybean, linseed, or cottonseed meal in the above mixture. If the regular herd mixture is balanced to fit the roughage, and has enough variety, it may be used for the herd bulls.

*The amount of grain* to feed a dairy bull, whether young or old, is determined by his condition. Older bulls should never be kept fat, but should be maintained in good, thrifty condition.

*Hay* may usually be fed in such quantities as the bulls care for it, altho many dairymen prefer to limit the roughage. Some bulls if fed too heavily on roughage tend to become paunchy and inactive. *Silage* if used at all, should be limited to 10 pounds a day or less. *Pasture grass* is very desirable, especially for older bulls.

The general aim in feeding the dairy bull should be to keep him in strong, vigorous condition. Plenty of exercise and the right amount of feed are the main factors in doing so.

**MATERIALS REQUIRED**

**Bull Shed, 12' x 20', One Unit**

- Concrete foundation wall (7 cu. yds.)—45 bags cement, 6½ cu. yds. gravel, and 3¼ cu. yds. sand
- Floor (5" thick, 3½ cu. yds.)—23 bags cement, 3¾ cu. yds. gravel, 1½ cu. yds. sand
- Sills—
  - 2 pcs. 2" x 8" x 12'
  - 2 pcs. 2" x 8" x 20'
- Studding—20 pcs. 2" x 6" x 18' cut
- Plate—4 pcs. 2" x 8" x 12'
- Purlin—2 pcs. 2" x 8" x 12'
Rafters—
  8 pcs. 2" x 6" x 12'
  8 pcs. 2" x 6" x 8'
Roof sheathing—350 bd. ft. shiplap
Roofing—3 squares
Siding—800 bd. ft. No. 116 D.S.
Hardware—one door set
Sashes—3, 6-pane, 9" x 12" panes
Nails—40# 8", 10# 16", 10# miscellaneous
Paint—2 gallons

Breeding Stall
Posts—5—6" x 6" x 8'
Planks—10—2" x 6" x 12'
Hinges—2 pairs, hand-forged

Bull Shed, 20' x 24', Two Units
Concrete foundation wall (9\% cu. yds.)—60 bags cement, 8\% cu. yds. gravel, and 4 cu. yds. sand
Floor (5' thick, 7 cu. yds.)—45 bags cement, 6\% cu. yds. gravel, and 3\% cu. yds. sand
Sills—
  4 pcs. 2" x 8" x 12'
  2 pcs. 2" x 8" x 20'
Studding—30 pcs. 2" x 6" x 18'
Plate—8 pcs. 2" x 6" x 12'
Purlin—4 pcs. 2" x 8" x 12'
Rafters—
  14 pcs. 2" x 6" x 16'
  14 pcs. 2" x 6" x 8'
Roof sheathing—700 bd. ft. shiplap
Roofing—6 squares
Siding—1400 bd. ft. No. 116 D.S.
Sashes—6, 6-pane, 9" x 12" panes
Hardware—2 single door sets
Nails—65# 8", 25# 16", 20# miscellaneous
Paint—3 gallons